Physiotherapists as Managers: An Analysis of Tasks Performed by Head Physiotherapists

Knowledge of the activities performed by managers forms the basis for management training yet little is known of tasks performed by managers in the health service. A study was performed to identify the managerial role of three physiotherapists randomly selected from eleven physiotherapists in charge of large hospital departments who had taken part in a previous study to establish a profile of perceived tasks.

Analysis revealed that the key roles of resource allocator, monitor and leader were similar to other middle managers, verbal contacts were typical of managers at all levels and clinical work caused role ambiguity.

The study indicated areas where the head physiotherapist's performance could possibly be improved together with suggestions for management training and the selection of future head physiotherapists.

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In Australian health service organizations the day to day management of distinctly specialized departments such as physiotherapy departments is generally delegated to a member of the respective 'specialized' professional group. Many of these people have received no formal training in management prior to their appointment and attain their position by virtue of their clinical expertise or seniority (Grant 1976, Stevens 1974, Manez 1978, Moore 1986).

Greatly increased health costs during the 1970's has resulted in more emphasis being placed on increasing the effectiveness and efficiency of health services (Commission of Inquiry into the Efficiency and Administration of Hospitals 1980). However, improving the manager's performance is contingent on a basic understanding of the tasks each manager performs and this knowledge forms the basis for designing management training programmes and the selection of future managers (Mintzberg 1975, Stewart 1979).

An extensive search of the literature has shown that little is known of the tasks and roles performed by physiotherapists as managers and that little overall importance has been placed on the position of head physiotherapist, despite urging by Nowell (1973, p27) for physiotherapists to acquire managerial skills 'at the risk of being managed by professional administrators'.

The aim of this paper is to examine some important concepts of the manager's role as well as the role of the physiotherapist as a manager. Particular reference will be made to a recent research study designed to analyse the tasks performed by head physiotherapists in selected Sydney metropolitan hospitals (Glendinning 1985).

Role

Role expectation has an important psychological function in providing the individual with a fairly specific model for interaction (Kelvin 1970) and can be described as a set of norms which in turn are prescriptions for behaviour (Brown 1967). As head physiotherapists frequently lack a role model and have very little knowledge of what is expected from their performance as managers, a knowledge of the tasks associated with their job will, as Katz (1974) pointed out, help to identify the particular skills they require to be effective.

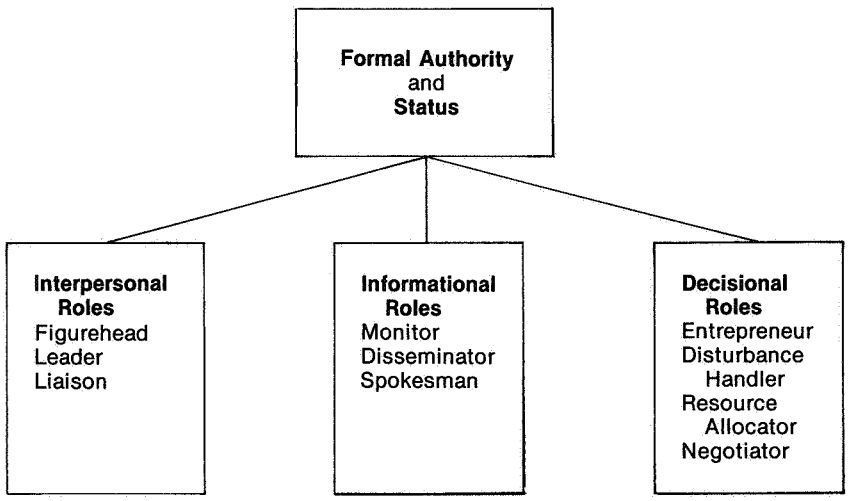
The scientific examination of role should be approached from either the sociological or psychological point of view (Kelvin 1970). However, Sarbin and Allen (1968) maintain that the focus of attention should be on overt social conduct as psychological theorizing can only be achieved through human judgmental processes which cannot be entirely free from error. Recognizing that many different roles are encountered during a person's role performance, Sarbin and Allen (1968) recommended that a sociological study of role should describe the number of roles encountered, with a comparison of the amount of time spent in one role relative to another as well as a

comparison of the range of roles played by the individual being studied with that of other individuals or groups in similar positions.

The Manager's Role

There have been many approaches to management theory over the past twenty five years (Koontz and O'Donnell 1968, Drucker 1974, Fiedler 1965, McGregor 1967, Blake and Mouton 1984, Campbell *et al* 1970, French and Raven 1967, Sayles 1964, Dale 1960) examining many areas of organizational behaviour. Each approach contributes in its own way to the overall view of the manager in the workplace. A wide variety of managers have been studied ranging from company presidents (Carlson 1951), first line supervisors (Kelly 1969), foremen (Guest 1955, Jasinski 1956), senior and middle level managers (Stewart 1967), lower and middle level managers (Sayles 1964) and chief executive officers (Mintzberg 1968). Commenting on the evidence emerging from these studies, Hunt (1979, p126) states that the manager's role 'is one of fragmented activity, incomplete tasks, interruptions, variety and unpredictable events. Little time is spent on planning or organizing or controlling. Most time is spent in directing'. These studies also showed that the functions of management originally propounded by Fayol consisting of planning, organizing, directing and controlling (Fayol 1950), failed to include many of the essential purposes of the manager's activities, which would have contributed to a richer definition of the manager's role.

Mintzberg (1968) examined the work activity of managers and was able to provide a statement of managerial activity not previously available. Using the role enactment concept described by Sarbin and Allen (1968), he was able to draw a number of conclusions on the manager's work characteristics that reinforced findings of earlier work activity studies (Carlson 1951, Stewart 1967). Mintzberg developed a typology of roles describing what the manager appears to do (see Figure 1).



From: Mintzberg, H. (1975), The Manager's Job: Folklore and Fact, *Harvard Business Review*, July/August.

Figure 1: The manager's roles

The three roles arising directly from formal authority and involving interpersonal roles are those of:

1. Figurehead, where duties are of a formal ceremonial nature;
2. Leader, defining the manager's relationships with his subordinates — motivating, staffing, *etc*;
3. Liaison, interacting with peers and others outside the organization to gain favours and information.

The informational roles focus on the manager as a focal point for his organizational unit's information. The three roles involved here are concerned with the receiving and giving of information by virtue of the interpersonal contacts. These are:

4. Monitor, where the manager receives and collects information;
5. Disseminator, involving the transmission of special information into the organization;
6. Spokesman, where, as 'the expert', the manager sends organizational information into the environment to outsiders.

By virtue of his formal authority and access to information, the manager plays a major role in the unit's decision-making system. Decisional roles are made up of:

7. Entrepreneur, where the manager's task is to initiate change;
8. Disturbance Handler, responding to pressures when the unit is threatened;
9. Resource Allocator, with the responsibility of overseeing the system by which organizational resources are allocated within the unit;
10. Negotiator, which is a vital part of the manager's job concerned with 'resource trading in real time' (Mintzberg 1973, p91).

These roles are further defined in Appendix A.

Koontz *et al* (1980) claimed that Mintzberg's study of five chief executives was too small to make sweeping conclusions, a view refuted by Mintzberg who cited several examples of empirical studies which suggested that the work of the five managers in his study was similar to that performed by managers in other studies. Koontz *et al* (1980) also claimed that Mintzberg ignored some activities not seen to be performed by managers (such as plan-

ning) but which were performed intuitively — a fact with which Mintzberg subsequently agreed, stating that 'when the manager must plan, he seems to do so implicitly in the context of daily actions . . . the plans of chief executives seemed to exist in their heads'. (Mintzberg 1975, p57).

Similarity in Manager's Roles

Many similarities exist between the work of all managers, irrespective of level or type of organization in which they work. These are summarized by Mintzberg (1973, p51) as follows:

- Managers feel compelled to complete great volumes of work; free time is scarce; breaks are rare.
- Activities performed are brief, varied and fragmented; interruptions are commonplace. Superficiality is an occupational hazard.
- Managers gravitate to more active, concrete activities (current, specific, well defined, non-routine), rather than the abstract. Mail is viewed as a burden. Planning is seen as important but receives little attention.
- Verbal and written (mail) contacts are the basis of the manager's work, manifest by five media; mail (written), telephone (verbal), unscheduled meetings (informal verbal, face to face) and tours (observational). Managers favour the verbal media.
- One third to one half of the manager's time is spent on external relationships, with a similar amount being spent with subordinates or others in the organization. Relatively little time is spent with superiors.

Differences in Manager's Roles

Managerial skills identified as technical, human and conceptual/design skills (Koontz *et al* 1980, Richards 1982) vary according to the level of management. The proportion of human skill in the ability to work with people is common to all levels of management. Supervisors are required to exercise their technical skills far more than high level managers, whereas the reverse is true for the use of conceptual/design skills. Middle managers use the three types of skills in almost equal proportions. Work differences also occur because of the type of organization, level of management, personality and situational variables. Thus, the role of the chief executive officer of a hospital will differ in some ways to that of the head physiotherapist in the middle management situation, with more emphasis being placed on negotiation by the former compared to resource allocation by the latter. Drucker (1974, p447) defines the traditional middle manager as a 'commander of men' but the emerging 'new' middle manager as essentially a 'supplier of knowledge'. The key roles of a middle manager in a specialist unit would be that of resource allocator, leader (to co-ordinate highly skilled experts) and monitor, as the expert or head of the specialist staff group (Mintzberg 1975).

Women as Managers

The majority of Australian graduates in physiotherapy are female. Eighty eight per cent of physiotherapists graduating from Cumberland College of Health Sciences (C.C.H.S.) between 1975 and 1982 were female (C.C.H.S. 1983), while a study of members of the Australian Physiotherapy Association (Refshauge and Duckett 1976) found that, in a sample of 86 heads of physiotherapy departments in Australian hospitals, 93 per cent were female.

Women are not well represented in senior management positions in health organizations — a study of the senior health administrative workforce in New South Wales (Palmer and Stevenson 1982) did not include a separate male/female classification because female representation was too low at this level. Similarly, a Canadian study (Dixon 1980) found that females were clustered in lower level administrative positions and under represented at senior levels in health administration. Women in administrative jobs have considerable work related pressures unique to female managers (Cooper and Davidson 1982), such as the burden of coping with an absence of role models resulting from the lack of women in higher positions within the organization, strains of coping with prejudice and sex stereotyping, overt and indirect discrimination from fellow employees and employers, and maintaining a family or home. Nevertheless, several studies have shown there is little difference in work style between men and women (Reif *et al* 1978, Bartol and Wortman 1975, Fogarty *et al* 1972).

Very few studies have been carried out which analyse the tasks of managers in health care for the purpose of role delineation and these are concentrated in the nursing field. Hunter and Mays (1978) conducted a patient dependency study of nursing activities in a psychiatric centre, while Jones and Jones (1979) studied the role of head nurses based on the method used by Mintzberg (1973). In both studies, charge nurses spent from 66 per cent to 75 per cent of their time with patients. Jones and Jones (1979) advocated a more balanced role model (divided between interpersonal, informational and decisional roles) and highlighted the need for clerical assistance and staff development in the management role.

Physiotherapists as Managers

The structure of physiotherapy departments in hospitals is relatively uncomplicated. Some larger departments are divided into sections such as outpatients, paediatrics, cardio-thoracic, rehabilitation, obstetrics and gynaecology, with senior physiotherapists supervising two or more staff in each section and reporting directly to the head physiotherapist. In smaller hospitals all physiotherapists report directly to the head physiotherapist. Staff of physiotherapy departments consist of registered physiotherapists, aides and clinical assistants all of whom are responsible to the head of the department. The head physiotherapist occupies a middle or intermediate management position in the organization, being

responsible to the medical superintendent. Sometimes they are responsible to the medical superintendent for clinical matters and the chief executive officer for administrative matters (A.S.H.A. 1976).

Little empirical research into the tasks performed by physiotherapists is available, although Watts (1971, p25) stated that 'the first step in the development of a system for division of responsibility must be an analysis of physiotherapy practice itself'. Tasks performed by clinical staff have been analysed (Dunsford 1981, Allen 1983, Hultgren 1971) but it would appear that no studies are available which analyse the tasks performed by head physiotherapists. Nowell (1973) reviewed some of the broad functions of management as applied to head physiotherapists, but did not present an analysis of the tasks actually performed by them. Checklists of tasks have been compiled by the American Physical Therapy Association (1977) and by the organizers of a management training course for District Physiotherapists conducted by the Department of Health and Social Security (U.K.) in 1977.

Glendinning (1985) conducted a study to determine task performance as perceived by head physiotherapists (Study I), using a questionnaire containing a checklist of tasks (developed from the two above sources and personal experience) which was distributed to eleven head physiotherapists employed in Sydney metropolitan hospitals and who were in charge of 15 or more staff. A secondary aim of the study was to discover areas of management which gave head physiotherapists the most job satisfaction and caused the most stress. Responses by the survey group to the questionnaire are displayed in Appendix B. The group carried out most of the tasks listed in the questionnaire (scheduling patient timetables and publishing articles being the only tasks not performed by any of the group) and identified 'assessing the department's performance' as their most important task, whilst 'organizing the department to run efficiently' gave the group the most satisfaction. However, there was little evidence that they received information which indicated the level of performance, with only 19 per cent of departments conducting staff appraisal programmes or having a system for identifying problems of a managerial nature and 36 per cent conducting quality assurance programmes. The greatest source of stress was the maintenance of an efficient service on a restricted budget which ultimately affected staffing levels. Coping with organizational structures, negotiating with administrative staff and disciplining staff members also caused concern. The study highlighted the frequent failure to collect data which indicated the level of the department's performance and the various stresses affecting the head physiotherapists in their role as managers.

One of the limitations of this study was that the results were based on the perceptions of the respondents rather than their observed performance. In addition, it was not possible to determine from the responses the different types of roles and the amount of time spent by head physiotherapists in these roles.

A second study (Study II) was therefore undertaken to analyse the tasks performed by head physiotherapists in hospitals and identify their managerial role using a structured observation method. The analysis of this role enactment would follow that postulated by Sarbin and Allen (1968) and used by Mintzberg (1973) in his study of five chief executive officers.

The research objective was to compare the managerial role of head physiotherapists with the role of other managers as identified in past research. It was predicted that head physiotherapists would exhibit many of the role patterns demonstrated by other managers in similar types of middle management positions. It was also predicted that head physiotherapists would fulfil the key roles of resource allocator, monitor and leader in keeping with their position as middle managers responsible for the internal operation of their departments.

The study was limited to observing head physiotherapists' overt behaviour. The psychological reasons for adopting this behaviour, the adequacy of their performance as managers, and the influence of leadership styles, power and mediating variables (such as type of organizations, seasonal factors, personality) on role were not the focus of this study.

The information gained from this research would assist in the future selection of physiotherapists for managerial positions and provide a basis for the design of management education and information programmes.

Study II: A Structured Observation of the Role of Head Physiotherapists

Method

Three head physiotherapists were randomly selected from the eleven head physiotherapists who responded to the questionnaire in Study I. All agreed to participate. Prior to commencing the research, a pilot study was conducted in another hospital observing the activities of a head physiotherapist for one day. This gave the observer practice in recording activities and demonstrated that the activities could be satisfactorily recorded and coded using Mintzberg's structured observation techniques. Each physiotherapist was informed of the study methods before the observation period began and was asked not to engage in discussion with the observer during the day. Each was asked to briefly introduce the observer when necessary, stating the reason for her presence, and to advise staff of the impending visit, requesting them not to alter their patterns of work or interaction. The researcher observed each physiotherapist for one working week over three consecutive weeks.

Every interaction or activity was recorded on a worksheet developed to encompass the categories of information used by Mintzberg to provide the information necessary for developing the manager's role. Each activity was timed to the nearest tenth of an hour and activities lasting less than three minutes were recorded as .02 hours. Activities less than one minute were also noted.

Each activity was allocated one of the ten roles described by Mintzberg (1973), by matching the purpose of the activity with the role definition. As an activity could represent several overlapping roles, the main purpose was chosen as the role. For instance, in discussing the plans for a new department with the project planning officer, the activity could represent the role of entrepreneur, disseminator or spokesman. The main purpose in this case would be that of entrepreneur. Details of telephone calls, mail received or sent, were briefly described by the head physiotherapist after the event. Upon completion each day, worksheets were collated with each activity being allocated one of the ten roles. A profile was then developed for each physiotherapist and a composite score calculated based on the average time spent by all three in various activities.

Results

A summary of the activities pertinent to each role can be found in Appendix A.

- Head physiotherapists spent approximately two thirds of their working time fulfilling the roles of resource allocator, monitor and leader (see Table 1)

The resource allocator role occupied 34% of the therapist's working time and was concerned with establishing work priorities and organizing the staff, space requirements and equipment to achieve these. The monitor role (17% of working time) involved the seeking and receiving of information which gave head physiotherapists an understanding of their department's operation and the health care environment. Such information was gathered through staff reports, personal observations and contacts inside and outside the hospital. The leadership role (15% of work time) was concerned with establishing an atmosphere within the department designed to motivate staff and improve their performance. The remaining one third of the therapists' time was divided between the roles of figurehead (7%), liaison (4%), disseminator (7.5%), spokesman (5%), entrepreneur (7.5%), disturbance handler (1%), and negotiator (2%).

- Head physiotherapists spent an average of 73% of their working hours in verbal contact with other people and an average of 27% of their time in desk work.

Table 1:
Analysis of head physiotherapists' roles

Role Classification	*Head Physiotherapists*							
	A		*B*		*C*		*Average Composite*	
	Hours/ Week	*% of Total*	*Hours/ Week*	*% of Total*	*Hours/ Week*	*% of Total*	*Hours/ Week*	*% of Total*
Interpersonal Relations Roles								
Figurehead	3.94	10	2.76	8	0.59	2	2.43	7
Leader	4.11	11	6.16	19	5.48	17	5.25	15
Liaison	2.82	7	0.43	1	0.88	2.5	1.38	4
Informational Roles								
Monitor	4.60	12	3.29	10	9.96	31	5.95	17
Disseminator	1.19	3	4.30	13	2.53	8	2.67	7.5
Spokesman	2.82	7	1.83	5	0.42	1	1.69	5
Decisional Roles								
Entrepreneurial	2.11	6	1.88	6	3.99	12	2.66	7.5
Disturbance handler	0.50	1	0.1	0.5	0.16	0.5	0.25	1
Resource allocator	14.47	38	12.07	37	8.43	26	11.66	34
Negotiator	1.72	5	0.1	0.5	—	—	0.6	2
Total	38.28	100	32.92	100	32.44	100	34.54	100

- An analysis of the activities involving verbal contact (see Table 2) showed that 14% of total work time was spent on the telephone, 22% attending scheduled meetings, and 17% in unscheduled meetings. The proportion of time spent on tours away from the department to observe activity or deliver information occupied 4% of time, whilst 16% of the working time was spent in non-managerial activities which involved patient contact activities such as patient treatment, organizing and attending clinics, ward rounds and clinical work such as writing in medical records or relieving the clerk at the reception desk.
- An average of 97 interactions occurred each day, one third of these lasting for less than one minute, and 91% lasting less than 9 minutes. Only 0.5% of interactions lasted for longer than one hour. This pattern of interactions was typical of managers in many other studies, who occupied positions at all levels in the organization and who worked at an unrelenting pace with activities characterized by brevity, variety and discontinuity.
- Head physiotherapists spent 5% of total verbal contact time with their superiors, 24% in contact with department staff, 24% in contact with others in the hospital and 38% with people outside the organization. Of these outside contacts, 11% of time was spent in contact with peers and trade organization representatives, 20% with clients or patients, and 7% with others independent of the organization.
- Head physiotherapists had a reasonably accurate perception of the tasks they performed as managers, with 54 of the 69 listed tasks perceived as being performed in Study I actually being perrformed in Study II. No additional tasks were performed in Study II that had not been listed in Study I.
- Although the head physiotherapists in Study I saw their most important task as assessing departmental performance, there was very little evidence in either study of the objective data required to perform this function.

Discussion

The hectic nature of the job and role ambiguity experienced in performing managerial and non-managerial activities were a constant source of stress for the head physiotherapists — neither of these being mentioned by the survey group participating in Study I as a source of stress.

Constant interruptions made concentration on desk activities extremely difficult. For example, checking pay sheets in one hospital department occupied the whole morning because of interruptions. A bank up of tasks resulted in the substitution of indepth efforts with superficiality in order to keep pace with work demands, a frequent occurrence amongst managers. Mintzberg (1973, p35) stated that 'superficiality is an occupational hazard in managerial work . . . in order to succeed the manager must, presumably, become proficient at superficility'.

The pattern of verbal contacts made by head physiotherapists was typical of other managers at all levels in other organizations. Executive officers in the Mintzberg (1973) study showed almost identical patterns of verbal contact. This follows the trend of contact patterns for managers in many other studies (Mintzberg 1973). Managers generally spend between one third and one half of their time with subordinates, whereas contact with superiors only exceeded one eighth of their time in one study. Contacts external to the organisation always occupied a significant proportion of the manager's time. The physiotherapists' contact with their own staff involved resource allocation, relaying 'official' communications, answering queries of an industrial nature and giving verbal encouragement directed at maintaining and improving staff morale. Contact with heads of other physiotherapy departments reinforced role patterns and sometimes resulted in changes in the head physiotherapist's role enactment.

Non managerial activities (or those involving direct patient contact) occupied a significant proportion of total work time (16%). The reasons for involvement in patient treatment were varied, namely the need to show staff they were competent practitioners, helping to share the clinical load, filling in for staff absences, responding to doctors' demands for exclusive treatment of their patients, preference for clinical work over administrative duties. Unless the physiotherapist gave specific instructions to avoid interruptions, patient treatments were the subject of many interruptions by staff enquiries and telephone calls. This role ambiguity caused stress, particularly to the two therapists maintaining a regular clinical load. The other, with no clinical role, appeared to cope very well with the demands of the position.

Role ambiguity experienced through relinquishing clinical skills for managerial responsibilities is a common source of stress to many health professionals (Cartwright 1979). It would appear that it is quite common for middle managers to be involved in activities requiring technical skills which demand up to 25% of their total work time (Koontz *et al* 1980), whilst Katz (1974) recognized that all managers do some work that is not purely managerial. Mintzberg (1973, p107) found that chief executives in smaller organizations 'step into non-managerial jobs in order to fill in when necessary'. Clearly, a need exists to minimize the stress caused to head physiotherapists from role ambiguity.

The role of resource allocator exhibited in this study is typical of middle managers primarily concerned with the smooth running of their department. The monitor role is an indication of the need to keep up to date with events occurring around them and with technical information necessary for these

Table 2:
Analysis of head physiotherapists' chronological record (by activities)

Activity	*Head Physiotherapists*			*Average Composite*
	A	B	C	
Total hours worked per week	38.28	32.92 (a)	32.44	34.54
Total amount of mail (pieces)	88	90	99	92
Total number of mail activities	109	68	168	143
Total number of contact activities	304	361	361	342
Desk Work				
Time on desk work	6.9 hrs	7.55 hrs	13.27 hrs (b)	9.24 hrs
Average duration	5 mins	5 mins	5 mins	5 mins
Proportion of total time	18%	23%	41%	27%
Telephone Calls				
Number of Calls	78	120	85	94
Time on telephone	5.62 hrs	6.01 hrs	3.06 hrs	4.89 hrs
Average duration of call	5 mins	3 mins	3 mins	4 mins
Proportion of total time	14%	18%	9%	14%
Scheduled Meetings				
Number of meetings	12	9	10	10
Time in meetings	11.88 hrs	6.24 hrs	4.73 hrs	7.6 hrs
Average duration	60 mins	42 mins	28 mins	43 mins
Proportion of total time	31% (c)	19%	14%	22%
Unscheduled Meetings				
Number of meetings	145	128	225	166
Time in meetings	6.39 hrs	4.77 hrs	6.83 hrs	6 hrs
Average duration	2 mins	2 mins	2 mins	2 mins
Proportion of total time	17%	14%	21%	17%
Tours				
Number of tours	—	18	22	13
Time on tours	—	2.97 hrs	1.34 hrs	1.4 hrs
Average duration	—	10 mins	4 mins	5 mins
Proportion of total time	—	9%	4%	4%
Patient Contact				
Number of contacts	69	9	19	32
Time in contact	7.49 hrs	5.47 hrs	3.27 hrs	5.4 hrs
Average duration	5 mins	36 mins	10 mins	17 mins
Proportion of total time	20%	17%	10%	16%
Proportion of activities lasting less than 9 minutes	85%	93%	94%	91%
Proportion of activities lasting less than 1 minute	30%	29%	45%	35%
Proportion of activities lasting longer than 60 minutes	0.6%	1%	—	0.5%
Total number of activities	433	229	592	485

a) Five hours of work schedule not recorded, due to involvement of Head Physiotherapist in hospital health promotions event.
b) Considerable time spent preparing a brief for a new department.
c) Includes time taken to attend meetings away from hospital in Community Health Centres.

physiotherapists as managers of a specialist staff group. Variations in role activity between physiotherapists can in part be accounted for by the situational variables occurring during the observation period. No attempt was made to assess the head physiotherapists' personalities and management styles which may also be a factor in role variation.

Each of the three physiotherapists (the 'sample group') performed similar tasks during the observation period to those they perceived themselves as performing in Study I (see Appendix 2). Tasks they perceived as being performed but which were not observed could possibly be attributed to the time frame of the structured observation study. However, these physiotherapists spent considerably more time per week in scheduled meetings (7.6 hours average) than originally perceived (1.66 hours average) and less actual time in outpatients (0.82 hours average) than perceived (4 hours average). The questionnaire responses of the three participating in Study II were typical of the responses of the remaining physiotherapists in the 'survey group' participating in Study I.

It is expected that head physiotherapists in smaller hospitals would have a much greater clinical involvement than their peers in larger departments. It might appear that identifying the role patterns of only three head physiotherapists would be insufficient to enable a generalization to be made of the role of head physiotherapists in large departments. However, in view of the fact that the head physiotherapists in the sample group were typical of the head physiotherapists in the survey group, and that remarkable similarities were observed in their work activities, it is hypothesized that most head physiotherapists have similar role patterns.

A limitation of the study was that the time of year it was carried out may have influenced the pattern of activities and one week's observation may have failed to pick up the patterns of longer range activities such as quality assurance and research programmes neither of which were in evidence during the study. Activities outside the normal department working hours (such as back classes at night, or 'bone breakfasts') were not recorded. The observer was excluded from observations on only two occasions but in both cases was informed of the purpose of the interaction.

The validity of the observations in Study II is best supported by the similarity of the results obtained by the sample group in Study I. Although two head physiotherapists commented that the observer's presence had not affected their work patterns, the other physiotherapist 'felt conscious of wasting time' and towards the end of the week was 'mentally exhausted' having 'been on my toes all week'. Thus the observer's presence may have influenced the style of this head physiotherapist's work to some extent. However, because it was impossible to alter scheduled meetings, incoming telephone calls or mail and patient contact activities because of observer presence, it was considered that this presence did not have a significant effect on work patterns. Staff became less inhibited in their interaction with the head physiotherapist after the first day of observation.

Whilst acknowledging the need for another observer to establish inter-rater reliability, this was not possible. There was no opportunity to have decisions verified by another observer, particularly when there were 3 or 4 purposes that related to the one activity. In view of the fact that the observer had practised recording during the pilot study and that the observations in the study period were not of a global nature, it was felt that the recording of activities in this study was a reasonably reliable account of the head physiotherapists' tasks.

Conclusion

The findings of this research support the hypothesis that head physiotherapists exhibit many of the role patterns demonstrated by other managers in similar types of jobs.

The key roles of resource allocator, monitor and leader fulfilled by head physiotherapists as managers corresponded with those of middle managers in charge of internal units within an organization.

Like other managers, physiotherapists preferred the verbal medium to desk activities, the proportion of time allocated to these media being similar to that of other managers. The relative distribution of time allocated by head physiotherapists to contact groups was virtually identical with the time spent in this activity by chief executive officers in Mintzberg's (1973) study and was consistent with findings reported in other studies (Mintzberg 1973, p45).

Head physiotherapists, in common with other managers, completed great volumes of work with their activities being brief, fragmented and varied. Most of their activities were of a current nature, involving, in the main, immediate action. Planning received little outward attention. The degree with which head physiotherapists used their technical skills appears to be consistent with that of most middle managers (Koontz *et al* 1980). However, there were differences in the way each group engaged in non-managerial activities. Whereas middle managers in other studies generally undertook non-managerial activities on a temporary, 'fill-in' basis (Mintzberg 1973, p107) these activities formed a regular part of the head physiotherapist's job.

Recommendations for Further Research

It is recommended that consideration be given to assessing the effectiveness of head physiotherapists as managers, because effective management is an essential ingredient in the effective delivery of health services (Longest 1981). As the predominant objectives of health care management are to improve standards of patient

care and to increase outputs from health expenditure (Commission of Inquiry into the Efficiency and Administration of Hospitals 1980, Volume 3) it is recommended that criteria be established which measure the success or effectiveness of head physiotherapists in achieving these objectives through managing their department's performance.

However, McCall (1976) cautions that measuring leadership effectiveness has many associated problems and cannot be reduced to a simple index of group productivity (demonstrated by increased department output statistics) or the degree of subordinate satisfaction with leadership style. As a minimum, McCall suggests criteria which measure the manager's ability to utilize and disseminate knowledge, the success in interacting with contacts outside the department, the ability to develop and motivate staff resulting in improved performance, the success in creating and coping with change and the actual task performance by the leader. McCall recognizes that many of these areas do not lend themselves to easy measurement, but suggests that behaviourally anchored measures developed by Smith and Kendall (1963) hold promise. Another aspect of the head physiotherapist's performance could be the extent to which managerial style, personality and a knowledge of managerial techniques influence their effectiveness as a manager. Measures of department performance which are partially influenced by managerial performance could also be examined. These measures may include staff turnover, the number of staff absences through illness, the amount of overtime worked and the external regard with which the department and head physiotherapist are held.

In view of the stressful nature of the managerial role, and the role ambiguity experienced by the head physiotherapists in Study II, it is recommended that a study be undertaken to assess the ability of head physiotherapists to cope with stress occurring in their jobs. Such a study could utilize the measures used by Morrison (1977) who examined the career adaptivity of middle managers to changing role demands, by assessing their career maturity, self esteem, personal autonomy, decision style, means of coping with stress, physical and cognitive activity. In assessing their ability to cope with stress, Morrison also examined intolerance of ambiguity and surveyed personal values, orderliness, goal orientation, interpersonal values, needs satisfaction and the manager's life histories.

It is recommended that further empirical studies be carried out on the role of managers in other allied health professions as a basis for the further comparison of managerial roles. Comparison with the roles of managers in similar departments in other western countries would also be of interest, to discover if they carried out similar tasks, set the same priorities and expressed similar frustrations concerning role ambiguity and preparation for managerial roles.

Implications of the Study

This research identified the role pattern currently exhibited by head physiotherapists. The information gained from this study has implications for the head physiotherapist's present role as a manager, the education of physiotherapists and the selection of physiotherapists for management positions.

Many factors may influence the role enactment of head physiotherapists described in this study. It is anticipated that the publication of these findings will result in head physiotherapists becoming more aware of their role expectations and may influence some in conforming more closely to role patterns revealed in this study. The delegation of some activities presently performed by head therapists to other staff members could influence the amount of time spent in one role relative to another. By increasing the senior physiotherapist's supervisory responsibility for staff and equipment in a specific treatment area (*eg* thoracics), a corresponding reduction should take place in the amount of time spent by the head physiotherapist in the resource allocator role. Training staff in department procedures should reduce the number of short interactions and interruptions to the head physiotherapist's job process, whilst allocating the more routine administrative responsibilities to the physiotherapist who is second in charge would permit the head physiotherapist to spend more time in entrepreneurial activities such as designing methods to measure department performance or developing research programmes. However, delegation and job sharing do inhibit the amount of information flowing directly to the head physiotherapist, necessitating the development of more formal communication systems (such as regular meetings with senior staff) to counteract this tendency.

Changes in organization policy can also affect role demands. A decision to build a new rehabilitation unit is likely to result in more of the head physiotherapist's time being spent in the entrepreneurial role with consequent reduction of time in other roles. Similarly, changes in the person's hierarchical level within the organization will alter their legitimate (or position) power (French and Raven 1967) and role demands. It is difficult to envisage head physiotherapists increasing their position power within hospitals, due to the monopoly exerted by the medical profession in upper management positions. However, changes in the organizational structure of paramedical departments involving, for example, the appointment of a non-medical administrator, could significantly alter the present role demands of these department heads.

Although role patterns have been identified, it does not mean they are necessarily ideal. The research has shown that there are many areas where weaknesses in the head physiotherapists' present role could be improved.

When viewing the head physiotherapist's roles in terms of classical theory, it would appear they spent most of their time organizing and directing. Virtually no attention was given to setting department objectives and devising means to carry them through (the planning function), nor was any attention paid to ensuring that the department was actually achieving what it was designed to achieve (the controlling function).

It would appear that head physiotherapists could make more effective use of their time and management skills by introducing changes to their work patterns. In view of the changing health care system, particularly resulting in the reduction in staffing numbers, an evaluation of present treatment procedures and outcomes would appear to have high priority to establish the areas of greatest need for the allocation of scarce staffing resources. The immediate introduction of information systems which indicate the departments' performance is also required. Such systems could comprise the regular monitoring of morbidity patterns occurring among clients treated in the department, details on the length of treatment for each diagnostic category, information on discharge status, and the recording of problems occurring in the department together with the action taken to alleviate or resolve them. The use of personal computers or computer terminals connected to the main hospital computer would provide an interface for monitoring these aspects of the department's performance. Research projects into the efficacy of present physiotherapeutic procedures and the effectiveness of department preventive health care programmes should also be undertaken. Head physiotherapists should also develop staff appraisal programmes for staff performance and mechanisms to gain feedback from staff members on their own performance as a manager.

Additional clerical and aiding staff, carefully selected and trained by the head physiotherapist, could perform many of the routine non-managerial tasks presently being performed by head physiotherapists. Clerical staff, for instance, could organize outpatient clinics, calling on the head physiotherapist only when necessary. They could also be trained to make more decisions themselves and thus reduce the number of interruptions to the head physiotherapist's work. Clerical staff could also be trained to monitor telephone calls or record messages when the therapist is involved in desk work that involves concentration. It may even be advantageous for the therapist to occasionally carry out desk work away from the department, free from interruptions.

The study showed that role ambiguity existed in the performance of head physiotherapist's work activities. One method of overcoming this problem would be to define the department's objectives more clearly stating department priorities (for example, clinical, research, educational), the role of the head physiotherapist and that of the staff. This function is already undertaken by hospital departments in preparation for the accreditation of their respective hospital (A.C.H.S. 1981). However, the head physiotherapist's role or job description, in particular, requires particular attention to clarify their participation in clinical activities. Whilst acknowledging that it is common practice for middle managers to 'step into non-managerial jobs to fill in when necessary' (Mintzberg 1973, p107), it is suggested that head physiotherapists should not maintain a permanent clinical load. It has been demonstrated that this aspect of the therapist's activities causes additional stress to an already hectic management routine. In addition, the constant interruptions experienced during the patient's treatment is extremely unfair to the patient and does not contribute to quality treatment.

Training head physiotherapists in management techniques based on the knowledge of their role and stress factors within that role is also a pressing requirement. Training should ideally follow the guidelines suggested by McCall (1976) where simulations would be constructed about the tasks head physiotherapists perform. Participants in the programme would be provided with feedback when they returned to the work place, either by way of video-recording or peer or observer rating of their performance.

Because head physiotherapists, like other middle managers, spent a high percentage of their time in the resource allocator, monitor and leadership roles, training programmes should be directed at the most effective ways of utilizing resources, establishing communication systems, and understanding leadership theory. Practise in planning department goals, devising ways of achieving these and evaluating the results is also required, as this area of managerial function was found lacking in the head physiotherapist's role as identified in this study. As much of head physiotherapist's time was spent in verbal contact, considerable emphasis needs to be placed on social interaction (James and Jongeward 1971, Argyle 1969, 1975). Factors shown to have caused stress amongst the head physiotherapists such as coping with organizational structures, staff rationalization and role ambiguity should also be discussed, and strategies developed for coping with stress.

A neglected aspect of physiotherapy undergraduate programmes is training in basic management techniques as well as an understanding of the importance and worth of the head physiotherapist's managerial role. Training in these areas would not only give undergraduates appropriate management skills, but would also make them aware of the difficulties experienced by head physiotherapists in carrying a clinical load.

This study also has implications for the members of selection panels charged with the task of selecting head physiotherapists. They must try to select the candidate who shows leadership qualities, with training and expe-

rience in administration, and an ability to interact successfully with many different people. The successful person must be flexible, content to be proficient in a superficial manner with a variety of subjects and accept the constant interruptions as a part of the manager's role. Skills in oral communication are essential as is a level of clinical expertise sufficient to perform the roles of leader and spokesperson for the group. Finally, the candidate needs to demonstrate a willingness to constantly evaluate and improve his or her own performance through learning experiences.

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Appendix A

Definition and Explanation of Roles and Terms

The definitions of managerial roles are a precis of those developed by Mintzberg (1973). Task examples relate to activities actually performed by head physiotherapists in Study II.

1. Figurehead
The symbolic head of the unit, who, because of this position, is obliged to perform a number of duties and be present at certain events.
Task Examples: representing department at meetings inside and outside hospital and at social functions. Signing official staff documents *eg* passport applications.

2. Leader
Responsible for motivating and activating subordinates; for staffing, training and associated duties. Defines the atmosphere in which the organization or unit will work.
Task Examples: all aspects of staffing, engaging, dismissing, training, promoting, remuneration, transmitting information to staff, answering requests for authorization, probing actions of staff *eg* staff appraisal, problem identification.

3. Liaison
The development and maintenance of a network of outside contacts and informers who provide favours and information.
Task Examples: contact with outside physiotherapists, doctors, other health professions and outsiders for the purpose of service and advisory activities, innovation. Similarly, contact with trade organizations.

4. Monitor
The seeking and receiving of a variety of special information to develop a thorough understanding of the organization and environment.
Task Examples: progress reports from staff on the department's operation (written, verbal), observations, contact with external environment regarding technological developments, political moves etc achieved through personal contact, attending conferences and meetings, letters, periodicals.

5. Disseminator
The transmission of information received from outsiders or from staff members to members of the organization and department staff.
Task Examples: reports on operation of department (*eg* minutes of meetings, visits, statistical summaries of activities), departmental procedures, job descriptions etc as required by senior management.
Informing members of the organization of changes or events occurring within the department (through personal contact, memo, etc). Relaying information to staff members.

6. Spokesman
Transmits information to contacts about the organization's or the department's plans, policies, actions, results etc and is viewed as an expert on the operations of the department.
Task Examples: public relations activities — explaining aspects of the department's operation to interested outsiders, compiling reports on students participating in work experience programmes, briefing superiors on various department programmes.

7. Entrepreneur
Searches the department and its environment for opportunities and initiates improvement projects to bring about change. Supervises design of projects.
Task Examples: redesign of records, action taking to improve existing situation, design and implementation of new programmes, changes to department layout.

8. Disturbance Handler
Responsible for corrective action when the organization or department faces important or unexpected disturbances.
Task Examples: resolving conflict between staff, between departments, coping with a sudden loss of resources such as a reduction in staff numbers.

9. Resource Allocator
Responsible for the allocation of organizational or departmental resources of all kinds, and for the making or approval of all significant organizational decisions.
Task Examples: Scheduling own time and staff time, establishing what is to be done, who is to do it, what type of organizational structure is to be adopted, deciding budget priorities. Specific activities may consist of scheduling patient appointments, staff rosters, space, organizing purchase and repair of equipment, listing own work priorities.

10. Negotiator
Responsible for representing the organization or department at major negotiations.
Task Examples: negotiating changes to staffing levels, design of premises.

Appendix B

Summary of Tasks Performed by Head Physiotherapists as Perceived by Survey Group, as Perceived by the Randomly Selected Sample Group, and as Actually Performed by Sample Group
(All results expressed as a percentage of each group).

	Survey Group (N = 11)		*Sample Group* (N = 3)			
	Perceived Performance		*Perceived Performance*		*Actual Performance*	
Tasks	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*
Question 2						
Representation at:						
a) Hospital staff meetings	100	—	100	—	100	—
b) Hospital social functions	100	—	100	—	100	—
c) Professional meetings	100	—	100	—	100	—
d) Other functions	19	81	33.3	66.6	33.3	66.6

Tasks	Survey Group (N = 11)		Sample Group (N = 3)			
	Perceived Performance		Perceived Performance		Actual Performance	
	Yes	No	Yes	No	Yes	No
Question 3						
Responsible for:						
a) i) recruiting staff	100	—	100	—	—	100
ii) introducing new staff	100	—	100	—	—	100
iii) staff promotion	100	—	100	—	100	—
iv) staff dismissal	72	28	100	—	100	—
b) Supervising students	9	91	33.3	66.6	—	100
c) Supervising staff						
i) personally	54	46	66.6	33.3	66.6	33.3
ii) delegated supervisor	91	9	100	—	100	—
iii) evaluation programmes	46	54	33.3	66.6	—	100
iv) other methods	19	81	—	100	—	100
d) Conduct staff appraisal	19	81	33.3	66.6	33.3	66.6
e) Conduct staff meetings	100	—	100	—	100	—
f) Conduct inservice training	100	—	100	—	100	—
g) Assign workloads	54	46	66.6	33.3	66.3	33.3
h) i) Schedule patient timetables	—	100	—	100	66.6	33.3
ii) Weekend rosters	54	46	33.3	66.6	33.3	66.6
iii) Holiday rosters	91	9	66.6	33.3	66.6	33.3
i) Give clinical lectures/tutorials	72	28	100	—	100	—
j) Staff grievances	100	—	100	—	100	—
k) Counselling staff	63	37	66.6	33.3	66.6	33.3
l) Disciplining staff	100	—	100	—	100	—
Question 4						
Regular attendance in past 12 months:						
a) Heads of Department Meeting (hospital)	100	—	100	—	100	—
b) Heads of Department (APA, SIG)	81	—	100	—	100	—
c) Conferences, lectures	54	46	66.6	33.3	100	—
d) Management lectures	54	46	—	100	—	100
e) Research methods	19	81	33.3	66.6	33.3	66.6
f) Other tertiary courses	19	81	33.3	66.6	33.3	66.6
g) Leave granted to attend	100	—	100	—	100	—
Question 5						
a) Reports from Physiotherapy Department Services area	72	28	100	—	100	—
b) Regularly visit sections of Physiotherapy Department	72	28	100	—	100	—
c) Conduct Quality of Care Evaluation	36	64	33.3	66.6	—	100
d) Receive or send mail to:						
i) Departments in hospital	100	—	100	—	100	—
ii) Health Commission (Regional Office)	91	9	100	—	—	100
iii) Health Commission (Central Administration)	28	72	33.3	66.6	33.3	66.6
iv) Trade Organizations	72	28	66.6	33.3	100	—
v) Professional Association	100	—	100	—	100	—
vi) Professional Organizations	91	9	100	—	—	100
vii) Patients or relatives	81	19	100	—	100	—
Question 6						
Most frequent method of communication:						
Individual contact.						

Tasks	Survey Group (N = 11)		Sample Group (N = 3)			
	Perceived Performance		Perceived Performance		Actual Performance	
	Yes	No	Yes	No	Yes	No
Question 7						
a) Prepare reports on Department activities	100	—	100	—	100	—
b) Write and sign requisitions	100	—	100	—	100	—
Question 8						
a) Mediate between P.T. and other hospital departments	91	9	100	—	100	—
b) Systems for identifying problems in Physiotherapy Department	19	81	33.3	66.6	—	100
c) Control discharge of patients	9	91	33.3	66.6	—	100
d) Conduct research projects (in last 6 months)	36	64	66.6	33.3	—	100
e) Allocate resources in Physiotherapy Department	100	—	100	—	100	—
f) Published Articles	—	100	—	100	—	100
Question 9						
Performing the following activities:						
a) Treating patients	72	28	100	—	100	—
b) Lecturing	64	36	100	—	100	—
c) Attending outpatient clinics	46	54	66.6	33.3	33.3	66.6
d) Attending ward rounds	19	81	33.3	66.6	33.3	66.6
e) Attending scheduled meeting	91	9	100	—	100	—
f) Allocating patients	54	46	66.6	33.3	66.6	33.3
g) Organizing physiotherapist's work	81	19	66.6	33.3	66.6	33.3
h) Attending correspondence	100	—	100	—	100	—
i) Preparing reports	100	—	100	—	100	—
j) Preparing and overseeing budget	64	36	66.6	33.3	66.6	33.3
k) Assessing department performance	81	19	100	—	—	100
l) Soothing patients, families	81	19	66.6	33.3	66.6	33.3
m) Pacifying doctors	81	19	100	—	—	100
n) Resolving interdepartment conflict	91	9	100	—	—	100
o) Negotiate for additional staff	100	—	100	—	33.3	66.6